

## **REMARKS**

The Examiner indicated claim 46 would be allowed if placed in independent form. This has been done.

The Examiner rejected claims 1-3, 7, 8, 11, 12, 15-19, 21-23, 25-27, 28, 32-35, and 38-42 under 35 U.S.C. §102 as anticipated by Schafer.

Claim 1 distinguishes over Schafer for the following reasons. Claim 1 recites a method relating to a rotogravure printing form. Schafer, on the other hand, is rotary offset printing. Thus, Schafer is irrelevant. Ink transfer roller 17 is not a printing form in Schafer. The printing form is the printing plate 6 shown in Fig. 2. The Examiner refers to column 2, lines 52-59. This portion of Schafer doesn't describe a rotogravure printing form but rather an ink transfer roller 17 consisting of a steel core 22 with a coating 23 of a wear-resistant material. The wear-resistant material has depressions 24 for receiving ink.

As described at column 2, lines 26-35, the printing plate 6 has a photosensitive resin layer 9 and a silicon layer 11 applied to the photosensitive resin layer 8. The planographic printing plate 6 is changed by a known process such that the photosensitive resin layer 9 forms ink-accepting printing areas 12 and the silicon layer forms ink-rejecting non-printing areas 13. This overall system is irrelevant to a rotogravure printing form where, as recited in claim 1, rotogravure cups are provided in a rotogravure printing form. As is well known to those skilled in the art, and as described in the "Background" portion of applicants application, rotogravure cups differ in volume to create differing corresponding tone values (cups which either hold less or more ink - half-tone dots). Such rotogravure cups recited in claim 1 in rotogravure printing where different cup volumes relate to different corresponding tone values are completely different than Schafer, since Schafer's printing form 6 has

no rotogravure cups of any kind, but only uses photosensitive layers forming ink accepting and ink rejecting areas.

The ink transfer roller 17 in Fig. 3 of Schafer is not a printing form, but only transfers ink to a surface of the printing form 6. The ink transfer roller 17 has no rotogravure cups as recited in claim 1 with differing volumes for different corresponding tone values. Claim 1 thus readily distinguishes.

Claim 1 distinguishes by reciting rotogravure cups, differing volumes of which determine differing corresponding tone value. Since Schafer is offset printing rather than rotogravure, there are no such rotogravure cups. The constant volume cups in the ink transfer roller 17 in Fig. 3 of Schafer are not rotogravure cups. With rotogravure, the different volume of the different cups provides the different tone values. In Fig. 3, each depression 24 provides the same amount of ink – completely different than rotogravure cups. The depressions 24 in Fig. 3 of Schafer do not determine tone value. They only transfer the ink.

The Examiner also cited Huttel. This reference shows the base member 1 to which a gravure 2 is applied. After the gravure is applied, a nickel phosphorous interlayer 3 is then applied. This layer 3 is tempered and then a wear-resistant layer 4 is applied thereafter.

The gravure 4 in Huttel is for flexographic printing (column 1, line 17) wherein the channels separating the raised surface islands having varying area are provided. These channels between the varying area islands are used to separate the islands. The size of the island determines the size of the ink to be laid by this printing form. This is clearly not a rotogravure printing form as required by claim 1, and there are no rotogravure cups with differing volumes. The reference is thus not relevant to claim 1. Moreover, claim 1 states that after the surface of the printing form is

provided with the wear-resistant layer, thereafter the rotogravure cups are provided in the wear-resistant layer. Huttel teaches the opposite. Huttel teaches directly away since the gravure is first provided in Huttel and thereafter the wear-resistant layer is provided.

Next, the Examiner cites Chen. Chen shows surface coverings such as resilient floor coverings or wallpaper and relates to methods of preparing the same (column 1, lines 23-25). This reference is irrelevant to a rotogravure printing form.

Finally, the Examiner cites George. George is exemplary of the state of the art described in Applicants' specification at "Background Of The Invention" at page 1. Fig. 2 shows a rotogravure plate to be wrapped around a cylinder. The plate has a magnetic steel backing 4, a copper etching or engraving surface 6, and ink reservoirs or wells 8, 11, 12. As explained at column 4 beginning at line 8, copper surface 6 is etched or engraved to form the ink reservoirs 8, 11, 12. These are etched or engraved in the copper surface 6. As described at line 21, after etching, the surface or plate 2 may be chromium plated in conventional manner where a wear-resistant surface for long plate life is desired.

Claim 1 readily distinguishes over George at least by reciting providing the surface of the rotogravure printing form with a wear-resistant layer having a Vickers hardness greater than  $110 \text{ kp/mm}^2$  and thereafter providing the rotogravure cups in the wear-resistant layer. George teaches the opposite and thus directly away from the invention. George teaches engraving in copper (which has a Vickers hardness of less than  $110 \text{ kp/mm}^2$ ) and provides the wear-resistant layer after the engraving or etching in a copper layer which is not a wear-resistant layer. Claim 1 thus readily distinguishes.

Dependent claims dependent on claim 1 distinguish at least for the reasons noted with respect to claim 1.

Claim 26 distinguishes by reciting that the wear-resistant layer is designed for having rotogravure cups at least one of etched and engraved therein. In George, the wear-resistant layer is not designed for having rotogravure cups etched or engraved therein. Rather in George, the rotogravure cups are first provided in a non-wear-resistant layer and thereafter the wear-resistant layer is laid there over. There is thus no wear-resistant layer designed for having rotogravure cups at least one of etched or engraved therein.

It is also noted that in George, the copper layer is not a wear-resistant layer since as is pointed out in Applicants' specification, copper has a Vickers hardness equal to or less than 110 kp/mm<sup>2</sup> (page 7, lines 4-6).

The other references cited are not relevant to claim 26 for reasons noted with respect to claim 1. They do not relate to rotogravure printing forms.

The dependent claims relating to claim 26 are allowable at least for the reasons claim 26 is allowable and also by reciting additional features.

Printing form claim 44 distinguishes in a manner similar to that noted with respect to claim 26. Dependent claim 45 distinguishes at least for the reason claim 44 distinguishes.

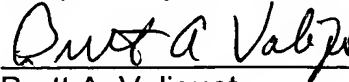
Independent printing form claim 47 distinguishes in a manner similar to claim 44 and claim 26. For example, George has no rotogravure cups engraved in a wear-resistant layer. Rather, George has cups engraved in a copper layer. In George there are no rotogravure cups engraved in his wear-resistant layer since the wear-resistant layer is applied after the engraving.

Dependent claims 48-50 distinguish at least for the reasons claim 47 distinguishes and by reciting additional features not suggested.

A formal drawing sheet for Figures 1 and 2 is enclosed.

Allowance of the case is respectfully requested.

Respectfully submitted,



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